CLAIMS

We claim:

1. A method of reducing inflammation in the intestine of a mammal in need thereof, comprising administering to the mammal a Zven1 or Zven2 antagonist, wherein the inflammation in the intestine is reduced.

2. The method according to claim 1, wherein the antagonist is an antibody.

3. The method according to claim 1, wherein the antagonist is selected from:

a) anti-idiotype antibodies;
b) antibody fragments;
c) chimeric antibodies; and
d) humanized antibodies

4. The method according to claim 1, wherein the antagonist is a receptor, and wherein the receptor binds the amino acid sequence as shown in SEQ ID NO:2, SEQ ID NO:29, or SEQ ID NO:5.

5. The method according to claim 4, wherein the receptor comprises the amino acid sequence as shown in SEQ ID NO:27 or in SEQ ID NO:28.

6. The method according to claim 1, wherein the antagonist is a portion of a receptor, and wherein that portion of the receptor specifically binds to the amino acid sequence as shown in SEQ ID NO:2, SEQ ID NO:29, or as shown in SEQ ID NO:5.

7. The method according to claim 1, wherein the inflammation is chronic.

8. The method according to claim 1, wherein the inflammation is sporadic.

9. The method according to claim 1, wherein the inflammation is a symptom of irritable bowel syndrome.

10. The method according to claim 1, wherein the inflammation is a symptom of inflammatory bowel disease.

11. The method according to claim 10, wherein the inflammatory bowel disease is ulcerative colitis or Crohn's disease.

12. A method of treating inflammation in the intestine of a mammal in need thereof, comprising administering to the mammal a Zven1 or Zven2 antagonist, wherein the inflammation in the intestine is reduced.

13. The method according to claim 12, wherein the antagonist is an antibody.

14. The method according to claim 12, wherein the antagonist is selected from:

e) anti-idiotype antibodies;
f) antibody fragments;
g) chimeric antibodies; and
h) humanized antibodies

15. The method according to claim 12, wherein the antagonist is a receptor, and wherein the receptor binds the amino acid sequence as shown in SEQ ID NO:2, SEQ ID NO:29, or SEQ ID NO:5.

16. The method according to claim 15, wherein the receptor comprises the amino acid sequence as shown in SEQ ID NO:27 or SEQ ID NO:28.

17. The method according to claim 12, wherein the antagonist is a portion a receptor, and that portion of the receptor specifically binds to the amino acid sequence as shown in SEQ ID NO:2, SEQ ID NO:29, or as shown in SEQ ID NO:5.

18. The method according to claim 12, wherein the inflammation is chronic.

19. The method according to claim 12, wherein the inflammation is sporadic.

20. The method according to claim 12, wherein the inflammation is a symptom of irritable bowel syndrome.

21. The method according to claim 12, wherein the inflammation is a symptom inflammatory bowel disease.

22. The method according to claim 21, wherein the inflammatory bowel disease is ulcerative colitis, Crohn's disease, or diarrhea-prone irritable bowel syndrome.

23. A method of detecting inflammatory bowel disease in a biological sample, comprising screening the sample for the polynucleotide sequence of SEQ ID NO:1, or SEQ ID NO:4 or a fragment thereof.

24. A method of detecting inflammatory bowel disease in a biological sample, comprising screening the sample for the polypeptide sequence as shown in SEQ ID NO:2, SEQ ID NO:29, or SEQ ID NO:5 or a fragment thereof.

25. A method of detecting irritable bowel syndrome in a biological sample, comprising screening the sample for the polypeptide sequence as shown in SEQ ID NO:2, SEQ ID NO:29, or SEQ ID NO:5 or a fragment thereof.

26. A method of detecting inflammatory bowel disease in a biological sample, comprising screening the sample for the polynucleotide sequence as shown in SEQ ID NO:1 or SEQ ID NO:4, or a fragment thereof.

27. A method of diagnosing inflammatory bowel disease in a biological sample, comprising screening the sample for the polynucleotide sequence of SEQ ID NO:1, or SEQ ID NO:4 or a fragment thereof.

28. A method of diagnosing inflammatory bowel disease in a biological sample, comprising screening the sample for the polypeptide sequence as shown in SEQ ID NO:2, SEQ ID NO:29, or SEQ ID NO:5 or a fragment thereof.

29. A method of diagnosing irritable bowel syndrome in a biological sample, comprising screening the sample for the polypeptide sequence as shown in SEQ ID NO:2, SEQ ID NO:29, or SEQ ID NO:5 or a fragment thereof.

30. A method of diagnosing inflammatory bowel disease in a biological sample, comprising screening the sample for the polynucleotide sequence as shown in SEQ ID NO:1 or SEQ ID NO:4, or a fragment thereof.

31. A method of treating treating inflammatory bowel disease in a mammal in need thereof, comrising administering to the mammal a polypeptide, wherein the polypeptide comprises the amino acid sequenc of amino acid residues 28 to 108 of SEQ ID NO:2, amino acid residues 28 to 129 of SEQ ID NO:29, or amino acid residus 20 to 105 of SEQ ID NO:5.

32. The method of claim 31, wherein inflammation in the bowel is decreased, reduced or inhibited.

33. A method of treating treating irritable bowel syndrome in a mammal in need thereof, comrising administering to the mammal a polypeptide, wherein the polypeptide comprises the amino acid sequenc of amino acid residues 28 to 108 of SEQ ID NO:2, amino acid residues 28 to 129 of SEQ ID NO:29, or amino acid residus 20 to 105 of SEQ ID NO:5.

34. The method of claim 33, wherein inflammation in the bowel is decreased, reduced or inhibited.

35. A method of treating treating irritable bowel syndrome in a mammal in need thereof, comrising administering to the mammal a polynucleotide, wherein the polynucleotide comprises the nucleic acid sequence of SEQ ID NO:1 or of SEQ ID NO:5.

36. The methoc of claim 35, wherein inflammation in the bowel is decreased, reduced or inhibited.